JOURNAL OF ELECTROANALYTICAL CHEMISTRY AND INTERFACIAL ELECTROCHEMISTRY

Vol. 318 Nos. 1 and 2 25 NOVEMBER 1991

CONTENTS

Review

Adsorption on stepped surfaces of platinum and gold single crystals
R. Parsons (Southampton, UK) and G. Ritzoulis (Thessaloniki, Greece) 1

Application of a Fourier transform method to the resolution enhancement of adsorption peaks in differential pulse polarography
I. Piżeta, M. Lovrić, M. Zelić (Zagreb, Yugoslavia) and M. Branica (Jülich, Germany) 25

A Monte Carlo study of intermolecular electrostatic interactions at the electrode / electrolyte interface
S. Lamperski (Poznan, Poland) 39

The wall-jet electrode Potential step chronoamperometry
A.C. Fisher, R.G. Compton (Oxford, UK), C.M.A. Brett and A.M.C.F.O. Brett (Coimbra, Portugal) . 53

Quantification of the mass-transfer mode
E. Vieil (Grenoble, France) 61

Electroanalytical simulations. Part 13. The simulation of adsorption processes at an electrode by orthogonal collocation algorithms
A. Leverenz and B. Speiser (Tübingen, Germany) 69

Electrogenerated chemiluminescence. Part 54. Electrogenerated chemiluminescence of ruthenium(II) 4,4′-diphenyl-2,2′-bipyridine and ruthenium(II) 4,7-diphenyl-1,10-phenanthroline systems in aqueous and acetonitrile solutions
P. McCord and A.J. Bard (Austin, TX, USA) 91

Assisted ion transfer at micro-ITIES supported at the tip of micropipettes
Y. Shao, M.D. Osborne and H.H. Girault (Edinburgh, UK) 101

Conductometric analysis of the second acid dissociation constant of H_2S in highly concentrated aqueous media
S. Licht, K. Longo, D. Peramunage and F. Forouzan (Worcester, MA, USA) 111

Electrochromism of WO_3 in acid solutions. An electrochemical, optical and electrogravimetric study
S.I.C. De Torresi, A. Gorenstein, R.M. Torresi and M.V. Vázquez (Campinas, Brazil) 131

The electrical double-layer structure in KPF_6 methanol + acetone mixtures
A. Muszalska and J. Jastrzebska (Warsaw, Poland) 145

Raman spectroscopy of the emersed Ag|alcohol electrochemical interface
J.E. Pemberton and R.L. Sobocinski (Tucson, AZ, USA) 157

Electropolymerization of pyrrole on a tantalum electrode
K. Yamamoto, Y.S. Park, S. Takeoka and E. Tsuchida (Tokyo, Japan) 171

Electrochemical investigation of dioxygen interaction with two cobalt chelates in solution and at the electrode surface
G. Costa, C. Tavagnacco and G. Balducci (Trieste, Italy) 183

In-situ infrared spectroscopic study of the anodic oxide film on iron in alkaline solutions
A. Bewick, M. Kalaji and G. Larramona (Southampton, UK) 207

Electrochemical and surface spectroscopic investigation of copper(111) films on ruthenium(0001)
K.R. Zavadil, D. Ingersoll and J.W. Rogers Jr. (Albuquerque, NM, USA) 223

Charge transfer studies of pyrrole copolymers substituted by anthraquinone, phenothiazine or anthracene moieties
C.P. Andrieux, P. Audebert and C. Salou (Paris, France) 235

Tin(IV) oxide grafted on a silica gel surface as a conducting substrate base for cupric hexacyanoferrate
G.A.P. Zaldivar, Y. Gushikem and L.T. Kubota (Campinas, Brazil) 247

Impedance studies of liquid / liquid interfaces. Part I. Instrumentation
R.D.G. Olphert, A.J. Strike and D.R. Whitehouse (Norwich, UK) 255

The kinetics of silver electrodeposition on iodine-covered Pt(111)
N.C. Gibson, P.M. Saville and D.A. Harrington (Victoria, Canada) 271

(continued on p. 3 of cover)

Contents (*continued*)

A contribution to the elucidation of the redox mechanism of phenylglyoxal in acidic solutions
M.A. Zón and J.M.R. Mellado (Córdoba, Spain) 283

Redox properties of cytochrome c_3 from *Desulfovibrio desulfuricans* NCIMB 8372. Effects of electrode materials and sodium chloride
D.L. Wang, M.T. Stankovich (Minneapolis, MN, USA), L.H. Eng and H.Y. Neujahr (Stockholm, Sweden) 291

Electrocatalytic activity of Co^{II} TPP–pyridine complex modified carbon electrode for CO_2 reduction
T. Atoguchi, A. Aramata, A. Kazusaka and M. Enyo (Sapporo, Japan) 309

Electro-organic reactions on organic electrodes. Part 16. Electrolysis using composite-plated electrodes: V Influence of hydrophobicities of anode, substrate and electrolytic solution on electro-oxidation of alcohols
Y. Kunugi, T. Nonaka (Yokohama, Japan), Y.-B. Chong and N. Watanabe (Kyoto, Japan) 321

Quartz crystal microbalance measurements during oxidation/reduction of hydrous Ir oxide electrodes
V.I. Birss, H. Elzanowska (Calgary, Canada) and S. Gottesfeld (Los Alamos, NM, USA) 327

The influence of cation size upon the infrared spectrum of carbon monoxide adsorbed on platinum electrodes
M.R. Anderson and J. Huang (Blacksburg, VA, USA) 335

Electrochemistry of adsorbed flavin adenine dinucleotide in acidic solutions
M.M. Kamal, H. Elzanowska, M. Gaur, D. Kim and V.I. Birss (Calgary, Canada) 349

Short communications

Electrochemical generation and detection of transient intermediates. Dimerizing species
C.P. Andrieux, M. Grzeszczuk and J.-M. Savéant (Paris, France) 369

Anodic oxidation of formaldehyde on a dropping mercury electrode in alkaline solutions
A. Vaškelis and E. Norkus (Vilnius, Lithuania) 373

Preliminary notes

Surface phase transition of ordered iodine monolayers on a Pt(111) electrode as studied by normal incidence optical second harmonic generation
M.L. Lynch and R.M. Corn (Madison, WI, USA) 379

Electron transfer through monolayers. Dependence of current on potential and coverage
A.K. Mishra (Madras, India), B. Bhattacharjee and S.K. Rangarajan (Bangalore, Karaikudi, India) . 387

An enhanced redox process of disulfide compounds at polyaniline film electrode
K. Naoi, M. Menda, H. Ooike and N. Oyama (Tokyo, Japan) 395

An unusual capacitance pit displayed by 4-phenylpyridine adsorbed at the mercury–aqueous electrolyte interface
F.G. Thomas and C. Buess-Herman (Brussels, Belgium) 399

The potential-dependent reorientation of adsorbed thiopyridine at a gold electrode in phosphate buffer
P.A. Christensen, A. Hamnett (Newcastle upon Tyne, UK) and I. Blackham (Oxford, UK) 407

Dynamic film rigidity observations during electrochemical deposition of polybithiophene films
A. Glidle, A.R. Hillman (Bristol, UK) and S. Bruckenstein (Buffalo, NY, USA) 411

Book reviews 421

Meeting report 425

Announcements 427

Author index 429

Subject index 430

Erratum 436